

AMENDMENTS TO THE CLAIMS

In the claims, please amend claims 1 and 25 as follows:

1. (currently amended) A genetic immunization method to induce an immune response specific to an antigen in a mammal comprising:
 - a) providing a nucleic acid sequence encoding a peptide containing at least one antigenic determinant of said antigen, operatively linked to one or more control sequences such that said nucleic acid sequence is capable of being expressed in a cell in said mammal;
 - b) optionally formulating said nucleic acid sequence into a particle by complexation with one or more polymers;
 - c) injecting said nucleic acid sequence into a vessel connected to a tissue in said mammal; and,
 - d) elevating intravascular pressure and increasing vascular permeability, thereby delivering said nucleic acid sequence ~~[[is]]~~ to an extravascular cell in said tissue, expressing said nucleic acid sequence in said cell ~~and inducing said immune response;~~ and,
 - e) generating in the mammal the immune response selected from the list consisting of: immunizing the mammal, vaccinating the mammal; inducing a cellular immune response, inducing a humoral immune response, producing antibodies specific to said antigen, and producing immune cells that produce antibodies to the antigen.
2. (previously presented) The method of claim 1, wherein said extravascular cell is a lymphoid cell.
3. (previously presented) The method of claim 2, wherein said extravascular cell is a gut-associated lymphoid cell.
4. (previously presented) The method of claim 2, wherein said extravascular cell is a nasal lymphoid cell.
5. (previously presented) The method of claim 1, wherein said extravascular cell consists of a liver cell.
6. (previously presented) The method of claim 1, wherein said extravascular cell consists of a muscle cell.

7. (original) The method of claim 1, wherein said nucleic acid is further protected by a coating.
8. (canceled)
9. (previously presented) The method of claim 1 wherein said vessel consists of a tail vein.
10. (original) The method of claim 1, wherein said sequence is a DNA sequence.
11. (original) The method of claim 10, wherein said DNA sequence is a plasmid.
12. (previously presented) The method of claim 1, wherein said mammal consists of a rodent.
- 13-24. (canceled).
25. (currently amended) A method of generating ~~an antibody response in a rodent~~ antibodies specific to an antigen comprising:
 - a) providing a nucleic acid encoding [[an]] at least one antigenic determinant of said antigen;~~and,~~
 - b) injecting said nucleic acid into a tail vein of [[said]] a rodent thereby delivering said nucleic acid to a liver cell wherein said antigen is expressed and an immune response directed against the expressed antigen is induced; and,
 - c) isolating from said rodent said antibodies or immune cells producing said antibodies.
26. (previously presented) The method of claim 25 wherein said nucleic acid is complexed to a polymer.
27. (previously presented) The method of claim 26 wherein said rodent consists of a mouse.
- 28-33. (canceled)